

WHAT IS CLAIMED IS:

1. A reel clutch of a tape recorder, which is installed in a reel disc assembly mounted on a deck of a tape recorder and having a reel gear and a reel disc, for  
5 generating a torque to adjust the tension of a magnetic tape, thereby controlling the running speed of the magnetic tape, wherein the reel clutch comprises:
  - a plate spring positioned between the reel gear and the reel disc; and
  - a stopper reel engaged with the reel disc to restrain the engaging height of the plate spring, so that the reel disc and the plate spring come into contact with each other  
10 to generate a torque by friction.
2. The reel clutch according to claim 1, wherein the bottom surface of the reel disc is provided with serrations which are formed to be capable of coming into frictional contact with the plate spring.  
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3. The reel clutch according to claim 1, wherein the plate spring comprises a plate body which is formed with one or more slits in a predetermined pattern so that the plate spring is freely elastically movable by an external pressure.
- 20 4. The reel clutch according to claim 1, wherein lubricant is interposed between the reel disc and the plate spring.
5. The reel clutch according to claim 1, wherein the reel disc assembly further comprises a light receiver/emitter sensor and the reel gear further comprises a plurality  
25 of sensing holes formed in the direction of rotation.
6. The reel clutch according to claim 5, wherein:
  - the light receiver/emitter sensor is adapted to emit light toward the reel gear, and detect light that reflects from a surface of the reel gear and detect that light has not been  
30 reflected from the surface of the reel gear, when the light has passed through one or more of the plurality of sensing holes.

7. A reel clutch of a tape recorder, which is installed in a reel assembly driving apparatus, mounted on a deck of a tape recorder and having an idle gear and clutching gear, for generating a torque to drive magnetic tape, wherein the reel clutch comprises:

a plate spring positioned between the clutching gear and the idle gear; and

5 a rotating body engaged with the idle gear to restrain the engaging height of the plate spring, so that the clutching gear and the plate spring come into contact with each other to generate a torque by friction.